

Serial No. 10/645,814

REMARKS

Status of the Claims

The claims in this application are claims 1-14, 16, 18 and 20-35.

35 USC 112, second paragraph

Claims 1-14, 16, 18 and 20-35 are rejected under 35 USC 112, second paragraph as indefinite. This rejection is believed to be moot in view of the above amendment to the claims. Reconsideration and withdrawal of this rejection are requested.

35 USC 103(a)

Claims 1-14, 16, 18 and 20-35 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Brown US 6,123,681 (Brown) in view of Shabty et al. US 2005/0137507 (Shabty), Madden et al. US 6,249,076 (Madden), Hegde et al. US 2004/0230090 (Hegde) and Barak et al. US 6,494,842 (Barak). This rejection is respectfully traversed.

Brown discloses anti-embolism stockings controlled by polymer strips. The polymer strips contract upon electrical stimulation, thereby causing compression to be exerted upon a portion of the body. Electroactive polymer (EAP) actuators of the type recited in the claims are not disclosed in Brown, nor is the ability to function in synchrony with the heartbeat of the user.

Shabty discloses inflatable cuffs or a plurality of inflatable cuffs for counterpulsation therapy without the use of compressed air. The inflatable cuffs of Shabty are completely different from the stockings of Brown in appearance (cuffs vs. stockings), basis of operation (inflation vs. material constriction), and purpose of operation (counterpulsation therapy vs. embolism prevention). The cuffs are not controlled by EAPs of any type.

Hegde disclose a vascular assist device which increases blood flow, generally in the aorta, by alternately compressing and releasing it. The device comprises at least a cuff usually assisted by a bladder. The disclosure of Hegde relates to an entirely different type of device from those of Brown and Shabty. The device of Hegde is

Serial No. 10/645,814

implanted in the body of a patient and does not provide counterpulsation by operating on a limb.

Madden discloses electroactive polymer actuators of the type recited in the present claims. However, the only possibly practical application disclosed in Madden involves the use of a maximum number of two actuators to turn a bearing in an unspecified mechanical device. See Figures 5 and 6 and their explication at columns 7 and 8. There is no suggestion of how the disclosed actuators could be used in any greater number in a medical device to be worn by a user.

Barak is directed to an automatic portable ambulant miniaturized system for applying pneumatic pressure to a body limb including a portable ambulant hand-held fluid source unit, a conduit for delivering fluid generated by the unit, and a sleeve coupled to the conduit and adapted to envelop a body limb. Abstract. The sleeve contains one or more individually inflatable cells, each cell being subdivided into two or more longitudinally extending confluent compartments along the axis of the body limb. *Id.* The compartments are inflated and deflated essentially simultaneously by the portable fluid source unit. *Id.* The sleeve of Barak is completely different from the EAP actuated garment of the present invention, for example, in appearance and in basis of operation (inflation vs. EAP constriction).

On this basis, it is respectfully submitted no suggestion and motivation to combine the references can be found within them. *In re Jones*, 958 F.2d 347, 351, 21 U.S.P.Q.2d 1941, 1943-44 (Fed. Cir. 1992), *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1598-99 (Fed. Cir. 1988). Combination of various selected pieces of the reference teachings without such suggestion/motivation can be based only on undue hindsight. See MPEP 2142, second paragraph, and the cases cited therein. In particular, see *Akzo N.V. v. U.S. International Trade Commission*, 808 F.2d 1241, 1480-81, 1 U.S.P.Q.2d, 1241, 1246 (Fed. Cir. 1986), *cert. denied*, 482 U.S. 909 (1987), *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 874, 228 U.S.P.Q. 90-99 (Fed. Cir. 1985).

Furthermore, even if the reference teachings were combined, the invention of the instant claims would not result.

For example, as presently claimed, the invention requires a plurality of EAP actuators extending circumferentially around the user's thighs in multiple rows when

Serial No. 10/645,814

worn by a user, wherein a plurality of actuators are provided in a spaced relationship in each single row, and wherein the spacings between EAP actuators in adjacent rows are offset longitudinally with respect to one another. This feature is neither taught nor suggested by the prior art of record.

Reconsideration and withdrawal of the rejection of claims 1-14, 16, 18 and 20-35 under 35 U.S.C. 103(a) are respectfully requested.

Provisional Obviousness-type Double Patenting

The provisional double patenting rejections made by the Examiner are noted. However, these rejections are not yet ripe for argument as the patent applications at the heart of the rejection have yet to issue as U.S. patents. Indeed, at a future time, the provisional double patenting rejections may become the only rejections remaining in the present application, in which case the rejection will be withdrawn in accordance with the provisions of MPEP 804 (emphasis added):

Occasionally, the examiner becomes aware of two copending applications...that would raise an issue of double patenting *if one of the applications became a patent*. ... The merits of such a provisional rejection can be addressed by both the applicant and the examiner without waiting for the first patent to issue.

The "provisional" double patenting rejection should continue to be made by the examiner in each application as long as there are conflicting claims in more than one application unless that "provisional" double patenting rejection is the only rejection remaining in one of the applications.

...

If the "provisional" double patenting rejection in one application is the only rejection remaining in that application, the examiner should then withdraw that rejection and permit the application to issue as a patent, thereby converting the "provisional" double patenting rejection in the other application(s) into a double patenting rejection at the time the one application issues as a patent.

Conclusion

In light of the above remarks, applicant believes that all of the rejections of record have been obviated, and allowance of this application is respectfully requested.

Serial No. 10/645,814

Fees

The Examiner is authorized to any fees that may be due to the undersigned attorney's PTO Deposit Account #50-1047.

Respectfully submitted,



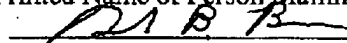
David B. Bonham
Registration No. 34,297

Attorney for Applicant
Mayer & Williams, PC
251 North Avenue West, 2nd Floor
Westfield, NJ 07090
Tel.: 703-433-0510
Fax: 703-433-2362

I hereby certify that this document and any document referenced herein is being sent to the United States Patent and Trademark office via Facsimile to: 571-273-8300 on June 19, 2008.

David B. Bonham

(Printed Name of Person Mailing Correspondence)



(Signature)